

Interdisciplinary Research

ARC Statement of Support for Interdisciplinary Research

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The Australian Research Council

The Australian Research Council (ARC) is a Commonwealth entity within the Australian Government. Its mission is to deliver policy and programs that advance Australian research and innovation globally and benefit the community.

The ARC funds research and researchers under the National Competitive Grants Program (NCGP). The NCGP consists of two elements—Discovery and Linkage. Within these elements are a range of schemes structured to provide a pathway of incentives for researchers to build the scope and scale of their work and collaborative partnerships. The majority of funding decisions under the NCGP are made on the basis of peer review.

The ARC also evaluates the quality of research being undertaken in higher education institutions through the Excellence in Research for Australia (ERA) program. This is aimed at identifying research excellence in Australian higher education institutions by comparing Australia's research effort against international benchmarks. ERA assesses quality using a combination of indicators and expert review by research evaluation committees.

Overview

The ARC is committed to supporting the highest-quality fundamental and applied research across all disciplines. This includes fostering excellence in research that traverses or transcends disciplinary boundaries and which synthesise or integrate methods and knowledge from multiple disciplinary domains.

This document outlines the processes the ARC has in place to ensure equitable assessment and evaluation of interdisciplinary research under:

- the National Competitive Grants Programme (NCGP)
- Excellence in Research for Australia (ERA).

Actions that the ARC will implement in 2016-17 to further support interdisciplinary research are detailed at the end of this document.

What is Interdisciplinary Research?

Interdisciplinary research is conducted across the research landscape alongside other discipline-specific or single-discipline modes of enquiry. Like all forms of research, interdisciplinary research ranges from applied through to theoretical research. Interdisciplinary research can be a distinct mode of research or a combination of researchers, knowledge and/or approaches from disparate disciplines. Interdisciplinary research is taken as an overarching term that incorporates a multitude of terms used to describe research approaches that do not fit within a traditional single disciplinary structure.

Under the NCGP, examples of interdisciplinary research may include researchers from different disciplines working together in a team, researchers collaborating to bring different perspectives to solve a problem, researcher(s) utilising methods normally associated with one or more disciplines to solve problems in another

discipline and one or more researchers translating innovative blue sky or applied research outcomes from one discipline into an entirely different applied research discipline.

For the purposes of research output assessments under ERA, interdisciplinary research is that which has been assigned two or more distinct Field of Research (FoR) codes across the two-digit level.

Principles

The ARC undertakes to:

Excellence

- Identify and support the highest quality research irrespective of the disciplinary grounding, approach or methodology of that research
- Ensure that excellence in interdisciplinary research is appropriately recognised in research assessment measures
- Provide funding opportunities for researchers to collaborate and explore interdisciplinary approaches to research and to engage in emerging fields.

Access

- Assess all research on a fair and equal basis, including proposals and outputs involving interdisciplinary and collaborative research
- Ensure that ARC peer review and assessment processes, including expertise
 of assessors, College of Expert (CoE) members and Research Evaluation
 Committee (REC) members, represent the diverse range of proposals
 submitted including those which are interdisciplinary
- Work to remove administrative barriers to participation between universities, and between universities and end users to facilitate the conduct and assessment of interdisciplinary research
- In planning new initiatives, consider the effect of requirements on researchers involved in interdisciplinary research.

Evaluation and review

- Maintain engagement with issues that influence the ARC's operating environment including emerging priorities, the needs of stakeholders, as well as global trends and best practice with regard to interdisciplinary research
- Undertake continuous improvement through analysis and self-assessment to ensure that funding opportunities and systems reflect world standards, are achieving their aims and are meeting the needs of ARC stakeholders
- Monitor and periodically review policies and procedures relating to interdisciplinary research to ensure they are commensurable with sector expectations, that they are being implemented as specified and that the ARC is achieving its aims

• One of the ten principles that will guide the development of the specific indicators as part of the Engagement and Impact assessment is 'to support research excellence no matter its approach'.

Initiatives in place

National Competitive Grants Programme

The ARC identifies and promotes excellence across all research discipline areas (except health and medical) in Australia's higher education institutions and is well placed to fund interdisciplinary research as it is not limited to funding single discipline areas. The diverse fields of research that the ARC funds easily allows interdisciplinary research to be embedded within the NCGP schemes.

In support of its commitment, the ARC:

Identification	Identifies interdisciplinary research by:
	 asking researchers submitting a proposal to the ARC to identify whether their research project is interdisciplinary and in what ways the research is interdisciplinary to help with assignment, assessment and to continue to monitor the evolution of how research is conducted, including the growth of interdisciplinary and team-based approaches to research using FoR categorisation to identify whether a research project is interdisciplinary to help with assignment for evaluation
Eligibility	 accepts interdisciplinary research proposals under all main funding schemes of the NCGP. In cases where interdisciplinary research is considered to be of particular importance references may be included in either the scheme objectives or selection criteria encourages both individual and team-based research projects under key schemes across Linkage and Discovery Programmes
Targeted schemes	 from time to time as directed, establishes specific initiatives to support either mechanisms considered to facilitate the conduct of interdisciplinary research, or particular interdisciplinary areas of research
Assessment and evaluation	 facilitates consideration of proposals by relevant College of Expert (CoE) members with interdisciplinary expertise or where not feasible allocate to CoE members who have broad disciplinary expertise regardless of discipline grouping appoints CoE members on the basis of broad disciplinary expertise allocate interdisciplinary proposals to external assessors with specific interdisciplinary expertise or from different disciplines

Monitoring/reporting	 from time to time will analyse outcomes of selection rounds to identify whether interdisciplinary proposals are achieving different success rates from time to time analyse outcomes of selection rounds to identify patterns and trends in interdisciplinary research to inform policy and schemes
Engagement	 participates in relevant forums relating to interdisciplinary research

Excellence in Research for Australia

All eligible institutions submit comprehensive information to the ARC about their research activities, including details relating to staff, publications and other research outputs, awards, grants, income from industry and other research users, income from the commercialisation of research, and other applied measures such as patents. Submitted items can be coded to multiple fields of research, facilitating the capture of interdisciplinary activity. In ERA, this is referred to as multi-disciplinary research. Committees of internationally–recognised researchers evaluate this material by discipline. Their expert judgments are informed by a range of summary indicators and quality assessments derived from the data submitted.

To facilitate the assessment of interdisciplinary research, institutions may assign up to three four-digit FoR codes to eligible researchers and research items. Items can be apportioned a percentage to reflect their disciplinary content.

Where two or more codes are assigned to a single item, the differently coded content might be related at the two–digit level. An example is an output that has been assigned (apportioned) as part 0603 and part 0604 (i.e. Evolutionary Biology and Genetics—both of which are within 06 Biological Sciences). For the purposes of ERA reporting multi–disciplinary (MD) research involves two or more academic disciplines that are considered more distinct. An example of a multi–disciplinary output is one where the research content draws on both Applied Mathematics (0102) and Genetics (0604) and the submitting university has apportioned the paper to each of these FoR codes from different two–digit groups (01 Mathematical Sciences and 06 Biological Sciences).

Actions 2016-17

In 2016–17 the ARC will:

National Competitive Grants Programme

- To better understand the interdisciplinary research profile of ARC-funded researchers, collect data on self-identified interdisciplinary proposals and analyse for patterns in proposals submitted and funded
- To ensure appropriate assessment of interdisciplinary proposals, review assessment processes for interdisciplinary research proposals, including identifying College of Experts members and assessors with expertise in interdisciplinary research
- To foster a supportive environment for interdisciplinary research:
 - continue to monitor the evolution of how research is conducted, including the growth of interdisciplinary and team-based approaches to research
 - provide data on self-identified interdisciplinary proposals in selection reports
 - review funding schemes documentation to ensure references to interdisciplinary research are appropriate
 - continue to engage with ARC stakeholders to convey the value of interdisciplinary research including for innovation, commercialisation and industry partnerships.

Engagement and Impact exercise

 To help develop methods for evaluating the impact and effectiveness of interdisciplinary research within current and future evaluative processes, consult with stakeholders about possible mechanisms. Sector and consultation feedback will help inform the development of a framework for the national assessment of the engagement and impact of university research.

Contact details

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